UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/409,347	09/30/1999	KIKUO NAITO	35.C13894	5241

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EXAMINER
KIM, CHONG R

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		**Applicant(s)**
Office Action Summary	09/409,347		NAITO ET AL.
	Examiner		**Art Unit**
	Charles Kim		2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _12 August 2003_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15,27,41 and 65-67_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15,27,41 and 65-67_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _30 September 1999_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.　　A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on August 12, 2003 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.　　Claims 1-15, 27, 41, 65, 66 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Referring to claim 1, the phrase "timing to apply electronic watermark data, among

processes regarding the data" in line 5 renders the claim indefinite because it is unclear what the

applicant is intending to claim. More specifically, it is unclear whether the watermark data is

applied to the processes or if it is applied to the data that is to be registered. Furthermore, it is

unclear whether "the data" in line 5 is referring to the registered data or the watermark data. For

examination purposes, the phrase will be interpreted as "timing to apply an electronic watermark

to the data".

The rejection above is also applicable to claims 15, 27, 41, 65-66.

Referring to claim 65, the phrase "discrimination means for discriminating, when

registering data, a timing process to apply electronic watermark data <u>among timing of registering</u>

<u>data and timing of sending the registered data</u>" in lines 7-9 renders the claim indefinite because it

is unclear what the applicant is intending to claim. More specifically, it is unclear whether the

timing process to apply the watermark is discriminated (separated) among the timing of

registering and sending the data, or if the timing to apply the watermark is discriminated

(determined) along with the timing of registering and sending the data. For examination

purposes, the phrase will be interpreted as "discrimination means for discriminating, when

registering data, a timing process to apply electronic watermark data along with timing of

registering data and timing of sending the registered data". A similar rejection is also applicable

to claim 66.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1, 4-5, 10, 13-15, 27, 41, 67 are rejected under 35 U.S.C. 102(e) as being

anticipated by Shur, U.S. Patent No. 6,330,672 ("Shur").

Referring to claim 1, Shur discloses an information processing apparatus comprising:

a.   discrimination means for discriminating, when registering data, timing to apply an

electronic watermark to the data [col. 9, lines 4-63 and figure 1A. The Examiner notes that

"registering data" in line 5 is interpreted as storing data in a memory as disclosed on page 25,

lines 5-12 of the applicant's specification. In this case, Shur explains that the watermark index

selector (120) selects index locations in the data (input bitstream) for applying the watermark,

when registering (storing) the data in memory (108) (col. 9, lines 52-63 and col. 10, lines 37-40

and figure 1A). Shur further explains that the index positions are determined by generating a

sequence that represents all the candidate opportunities for inserting watermark data (col. 9, lines

10-12). Examiner notes that determining a sequence that represents index positions for inserting

a watermark inherently determines a timing for applying the watermark because each selected

index location of the bitstream where the watermark is inserted corresponds to a particular point

in time at which the watermark is applied. Therefore, inserting the watermark in the selected

index locations results in discriminating a timing for applying the watermark]

b.   registration means (108) for registering (storing) the data so that the electronic

watermark is applied to the data at the timing discriminated by the discrimination means (figure

1A).

Referring to claim 4, Shur further discloses an output means for outputting the data after

an electronic watermark has been removed (extracted) for the data (col. 12, lines 4-11 and step

320 in figure 3).

Referring to claim 5, see the rejection of at least claim 4 above. Note that the "printing means" in line 4 is interpreted as being analogous to the "outputting means" in line 2 of claim 4 above. Shur further discloses a display means (320) for displaying data which the electronic watermark is applied to (col. 11, line 67-col. 12, line 11 and figure 3).

Referring to claim 10, Shur discloses that the discrimination means further discriminates a method of applying an electronic watermark method among plurality of electronic watermarking methods (col. 9, lines 21-50).

Referring to claim 13, Shur further discloses that the discrimination means further discriminates electronic watermark information to be applied to the data (col. 9, line 65-col. 10, line 26 and figure 1A. Note that the "watermark parameters" in col. 9, line 67 are interpreted as the discriminated watermark information).

Referring to claim 14, Shur further discloses a management means (140) for managing the timing discriminated by the discrimination means for each registered data (figure 1A).

Referring to claims 15, 27, 41, and 67, see the rejection of at least claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 2-3, 6-8, 65, 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shur, U.S. Patent No. 6,330,672 ("Shur").

Referring to claim 2, the claim's use of "or" between two limitations requires the prior art

to meet either one of the two limitations. In this case, Shur discloses that the data is registered

(stored) in the storage means (108), but fails to explicitly disclose that the discrimination means

discriminates a timing of registering (storing) the data. However, Shur explains that if the

storage means (108) is full, an indicator is fed back to stop the process (col. 6, lines 63-65. Note

that the indicator stops the data from being registered/stored in the storage means). Therefore, it

would have been obvious to utilize the indicator of Shur to set a timing for registering (storing)

the data in the storage means, in order to allow the data to be stored without any information

being lost due to the storage means being full.

Referring to claim 3, the claim's use of "or" requires the prior art to meet one of the three

limitations. In this case, Shur further discloses that the discrimination means discriminates the

timing of registering the data, as noted above (claim 2).

Referring to claim 6, the claim's use of "or" requires the prior art to meet one of the three

limitations, as noted above (claim 3). More specifically, claim 3, lines 3-5 recites

"discrimination means discriminates one of timing of registering the data, timing of sending the

registered data, or timing of printing the registered data". The Examiner has chosen to examine

the limitation of discrimination means discriminates the timing of registering the data (see

rejection of claim 3 above). Therefore, Shur still applies to claim 6 for discriminating the timing

of registering the data as noted above.

Referring to claim 7, see the discussion of at least claim 4 above. Shur fails to explicitly

state that the output device removes the watermark. However, it would have been obvious to

remove the watermark with the output device, since the embedded watermark deteriorates the

original data to some degree. One would be motivated to remove the watermark with the output

device before outputting the data, in order to eliminate deterioration of the data as it is being

outputted.

Referring to claim 8, Shur discloses an output device (buffer) as noted above (claim 4).

Shur fails to explicitly state that when the output of the data is complete, the output device

deletes data received from the information processing apparatus. Official notice is taken that it

was exceedingly well known for buffers to delete data once the data is completely outputted.

One would have been motivated to delete the received data after it has been completely outputted

in order to free up space/memory to store additional incoming data. Therefore, it would have

been obvious to utilize the output device of Shur to delete the data received from the information

processing apparatus after the output of the data is completed.

Referring to claim 65, Shur discloses an information processing apparatus comprising:

a.   discrimination means for discriminating, when registering data, a timing process to apply

electronic watermark data [col. 9, lines 4-63 and figure 1A. The Examiner notes that "registering

data" in line 7 is interpreted as storing data in a memory as disclosed on page 25, lines 5-12 of

the applicant's specification. In this case, Shur explains that the watermark index selector (120)

selects index locations in the data (input bitstream) for applying the watermark, when registering

(storing) the data in memory (108) (col. 9, lines 52-63 and col. 10, lines 37-40 and figure 1A).

Shur further explains that the index positions are determined by generating a sequence that

represents all the candidate opportunities for inserting watermark data (col. 9, lines 10-12).

Examiner notes that determining a sequence that represents index positions for inserting a

watermark inherently determines a timing process for applying the watermark because each

selected index location of the bitstream where the watermark is inserted corresponds to a

particular point in time at which the watermark is applied. Therefore, inserting the watermark in

the selected index locations results in discriminating a timing process to apply the watermark],

along with timing of sending the registered (stored) data [col. 6, lines 61-67. Shur explains that

the data stored in the storage means (108) is transmitted (outputted) if the storage means is not

full. It is noted that transmitting the data if the storage means is not full is interpreted as setting a

timing for transmitting the data; since the data will be transmitted during a time when the storage

buffer is not full].

Shur discloses that the data is registered (stored) in the storage means (108), but fails to

explicitly disclose that the discrimination means discriminates a timing of registering (storing)

the data. However, Shur explains that if the storage means (108) is full, an indicator is fed back

to stop the process (col. 6, lines 63-65. Note that the indicator stops the data from being

registered/stored in the storage means). Therefore, it would have been obvious to utilize the

indicator of Shur to set a timing for registering (storing) the data in the storage means, in order to

allow the data to be stored without any information being lost due to the storage means being

full.

Shur further discloses a registration means (108) for registering (storing) the data so that

the electronic watermark is applied to the data before registering the data (figure 1A).

Referring to claim 66, see the rejection of at least claim 65 above.

5.   Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the

combination of Shur U.S. Patent No. 6,330,672 ("Shur") and Stefik et al., U.S. Patent No.

6,233,684 ("Stefik").

Referring to claim 9, Shur fails to teach that the output process does not halt even upon

receiving of a halting instruction.

Stefik teaches a data output process that protects the user in the situation where the

outputting process (printing) may become inadvertently terminated before the entire digital work

is outputted (printed) (col. 13, lines 17-19). Therefore, it would have been obvious to continue

the output/printing process even upon receiving a halt instruction. In the case where outputting

the data requires a fee (Stefik, col. 13, line 13), one would be motivated to continue output even

upon receiving a halt instruction, so that the user obtains the entire data that they paid for.

Shur and Stefik are both concerned with applying an electronic watermark to data. Stefik

provides a secure method for outputting watermarked data. Therefore, it would have been

obvious to modify the output process of Shur, so that it does not halt even upon receiving of a

halting instruction, as taught by Stefik.

Referring to claim 11, Shur discloses a plurality of watermarking methods as disclosed

above. Shur teaches at least a method for employing an electronic watermark as invisible

information (col. 10, lines 53-55), but fails to teach employing an electronic watermark as

invisible information.

However, employing an electronic watermark as both visible and invisible information

was exceedingly well known in the art. For example, Stefik teaches that multiple watermarking

(visible and invisible) technologies may be applied to the same digital work (col. 8, lines 52-55).

Shur and Stefik are both concerned with applying an electronic watermark to data.

Stefik's method improves the resistance of the watermark by allowing the invisible watermark to

remain in the data even if the visible watermark is removed (Stefik, col. 8, lines 55-56).

Therefore, it would have been obvious to modify the plurality of watermarking methods of Shur

to include an electronic watermark as both visible and invisible information, as taught by Stefik.

6.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination

of Shur U.S. Patent No. 6,330,672 ("Shur") and Yoshiura et al., U.S. Patent No. 6,131,162

("Yoshiura").

Referring to claim 12, Shur discloses a plurality of electronic watermarking methods that

includes a method for employing an electronic as removable information (col. 12, lines 4-6), but

fails to include an electronic watermark as unremovable information.

However, employing an electronic watermark as both removable and unremovable

information was exceedingly well known in the art. For example, Yoshiura discloses a plurality

of watermarking methods that includes at the least a method for employing an electronic

watermark as removable (col. 14, lines 22-25) and a method for employing an electronic

watermark as unremovable information (col. 13, lines 55-56).

Shur and Yoshiura are both concerned with applying an electronic watermark to data.

Yoshiura provides a flexible watermarking method that prevents unauthorized use of the data.

Therefore, it would have been obvious to modify the plurality of watermarking methods of Shur

to include an electronic watermark as both removable and unremovable information, as taught by

Yoshiura, in order to increase the flexibility of the watermarking system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.   Lacy et al. U.S. Patent No. 6,266,419 discloses an apparatus for determining a timing for applying an electronic watermark to data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.
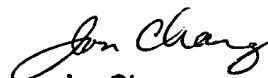
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

ck
November 6, 2003

Jon Chang
Primary Examiner